FLICC newsletter

FLICC Offers Guidance to the Department of Homeland Security

Under the aegis of the FLICC, the librarians of the Department of Homeland Security (DHS) and librarians from agencies that contributed staff to DHS formed a working group with the goal of developing a plan for providing cohesive information content services to DHS and its customers. (See *FLICC Newsletter*, Winter 2003.)

After considering components of an overall information strategy, the working group began by taking the following actions:

• Implementing virtual library and other free resource links on the DHS intranet portal.

• Proposing access for DHS staff to commercial online databases to support their investigations and administrative tasks.

• Exploring the provision of cooperative digital reference services via the DHS intranet portal.

• Coordinating interlibrary loan services for materials.

In a letter to Secretary Ridge last June, the working group outlined the above goals and suggested that DHS consider creating a department librarian position that would work with agency staff, including the Chief Information Officer (CIO), and with FLICC to achieve an enterprise-wide information resources strategy.

FLICC Identifies Strategies

To help DHS administrators advance quickly to enterprise-wide content licensing, the working group and FEDLINK staff identified the commercial information retrieval databases and electronic resources currently used by DHS personnel and the number of end users of each database. FEDLINK then asked vendors to submit proposals that would provide users in the new agency with the same or better access to databases than they had in their old agencies, competitive price quotes and anticipated DHS savings.

The working group also proposed that DHS offer cooperative virtual reference services that could be accessed through the DHS intranet portal. To do this, volunteer federal librarians from DHS and other agencies would provide the expertise, including "live chat" for a couple of hours each day and/or responses to email queries from DHS staff for information, resource referrals or additional research options.
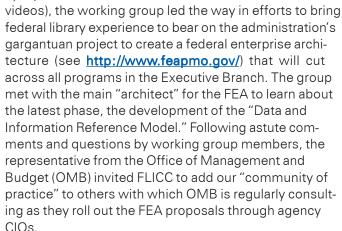
FLICC Makes Its Proposal

Following the working group's research and modeling, Hoyt Galloway, DHS/Customs, FLICC's Executive Director, Susan M. Tarr and FEDLINK Network Program Specialist, Kathy Eighmey, met with DHS's Michael Dorsey, Chief of Administration, and Kathy Schultz of Records Management to discuss the details of the proposals. The working group also sent copies of its recommendations to Janet Hale, Under Secretary for Management, other CIO staff and procurement personnel. DHS managers were receptive to both the enterprise applications proposal and the virtual reference plan. ∎

BOARD
TALK

The last few months have been very productive in terms of raising FLICC's visibility among federal decision makers on content management issues.

The FLICC Content Management Working Group, under the leadership of co-chairs Blane Dessy (DOJ) and Rod Atkinson (LC/CRS), has been at the forefront of several recent accomplishments. In addition to sponsoring a number of educational programs on key issues in content management (see Page 7 for a synopsis of one of our newest online videos), the working group led the way in efforts to bring federal library experience to bear on the administration's gargantuan project to create a federal enterprise architecture (see http://www.feapmo.gov/) that will cut across all programs in the Executive Branch. The group met with the main "architect" for the FEA to learn about the latest phase, the development of the "Data and Information Reference Model." Following astute comments and questions by working group members, the representative from the Office of Management and Budget (OMB) invited FLICC to add our "community of practice" to others with which OMB is regularly consulting as they roll out the FEA proposals through agency CIOs.

In June, FLICC's Department of Homeland Security (DHS) Libraries Working Group addressed Secretary Tom Ridge with a proposal to create a central library director position for the Department. In a letter signed by the Acting Associate Librarian of Congress for Library Services (who serves as "chair designate" of FLICC), the working group highlighted its achievements this spring under the FLICC auspices, but then went on to say: "In order to achieve an enterprise-wide information resources strategy, the working group needs to evolve into an official council of library/information specialists, headed by a Department library director." Subsequently, the FLICC membership promptly answered an informal DHS request for sample position descriptions for library directors by forwarding several PDs at the GS-15 level and above.

The FLICC Executive Board has been an integral part of each of these actions through the participation and reporting by the FEB liaison for each working group. Furthermore, the Board itself worked swiftly during a two-week period in May to evaluate candidates and prepare nominations for the interagency council OMB is establishing to carry out the mandates of Section 207 of the E-Government Act of 2000 (PL 107-347). The names and credentials of two well-qualified federal library leaders have been forwarded to OMB; now the Board is eagerly awaiting the announcement of the council membership. At my urging, the Library of Congress also submitted the name of a cataloging expert to serve as a resource for this important group.

These are only a few highlights from a very prodigious spring and summer during which federal librarianship continued to blossom!

Susan M. Tarr
Executive Director, FLICC

FLICC Forum 2003:
Speakers Illuminate Role of the "I" in IT

Librarians have always created more efficient access to information, said Librarian James H. Billington in his opening remarks at this year's Federal Library and Information Center Committee (FLICC) Forum. In fact, the swiftly evolving technologies that enable a more dynamic use of information — known as enterprise content management — are electronic versions of the staple tools of librarians, he contended.

The forum's question for 2003 centered around information management policy. Or, in more formal words, what is the current policy context for federal enterprise content management? And, should federal librarians be responsible for it?

Billington reminded the packed audience March 19 in the Mumford Room that "content management, at its core, is the bridge between resources and users." Content management, done correctly, can resolve the concerns of delivering the most accurate, the most timely, the most reliable, and the most needed resources — both efficiently and economically, he said.

"Now that Congress has charged the federal community with improving both its content and technology management, it is the federal librarian who can determine how best to syndicate the nation's data and develop sustainable processes to ensure both its access and protection," said Billington.

Two keynote speakers, Stephen Arnold, president of Arnold Information Technology and a leading international authority on online database systems, and Rep. William Lacy Clay (D-Mo.), ranking member of the Subcommittee on the Census, expanded on Billington's statements. Arnold spoke first, giving a succinct view of the future enterprise content management setting and policy momentums enabled by technology. Clay brought hindsight to the issue with an overview of the history of Congress' involvement in information policy and the impact of last year's E-Government Bill.

James H. Billington, Librarian of Congress

The Changing World of Enterprise Content Management

Step by step, Arnold summarized what content consists of: First there is the creation of it, he said, explaining that "wherever there is a computer, there is the creation of data." Then there is the production of data, which varies by device. A word processor creates a different type of data than a video editing program. Management comes next, with Arnold's observation that "it is clearly important to get control of information

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> *"At the top of the stack is support to citizens, then there is the actual delivery; [these] are support functions. Finally, underpinning it all is enterprise content management."*

assets." Then there is distribution and content delivery. Finally, content management needs promotion, or in other words, it must be communicated. "Content is useless unless you pass it on," he said.

But, "content threatens to overwhelm us," Arnold observed. In 2000, there were 15 million gigabytes of digital information available — including material that reached back to the beginning of recorded time. By 2003, the number had skyrocketed to 57 million gigabytes of information, he said. The creation of content continues at this exponential growth. To prove that there is "no single solution," he named several companies that are helping the government to manage its content.

"What is driving content management?" he asked the audience. One driver is the idea — the growing awareness — that content management is necessary, said Arnold. Another is the demand for integration. He said, "Content management has to be a part of the woodwork, it must feel comfortable.

"We're caught in a double helix, between two inseparables — technology and text. They intertwine and the connectors are us, the people who know how to bridge technology."

To drive home his point of the changing setting of content management, Arnold showed a picture of the plains of Mongolia, bare except for a hut or two, ringed far on the horizon by mountains. "Here is where a different modality is emerging," he said. "And it must be wireless. There's no money to lay a land line."

Together with the "Starbucks-ification" of the work environment, which he described as fluid and collaborative, and the advancement of accessing devices, such as a dual processor computer in a phone that can run video — the latest offering from the Japanese Internet behemoth NTT DoCoMo — enterprise content management has much to deal with in the near future.

"This is the new setting that enterprise content management policy must understand," said Arnold. But it must also take into account its chronic problems. "When we think about enterprise content management in the federal government, not just the library, we have to recognize that there are silos of information. And they are necessary. No one wants Department of Defense

Stephen Arnold, of Arnold Information Technology

information to appear on the FirstGov Web site," he said.

"Second, we must be aware of fads and that procurement often is driven by fads. Third, good government and technology are not necessarily the same thing," he added. The gap between IT pros and "the person who sees a citizen" must be overcome as well as the lack of business architecture.

These chronic policy problems are further complicated by content management's digital problems, such as the management of 70 million Web pages on FirstGov and the sheer number of transactions that need to be digitized in the federal government.

From a policy point of view, Arnold explained, "At the top of the stack is support to citizens, then there is the actual delivery; [these] are support functions. Finally, underpinning it all is enterprise content management."

"This is how to think about content management," said Arnold, describing its appearance. At the bottom is the critical layer of information storage; then transaction management (the set of software determining who gets access, etc.); then business logic (the set of rules); then its presentation — the interface. Finally, before a customer can get into the information that he or she wants, there must be a layer of security or authentication. At the top of the layers is the customer, accessing information down though the stack." If a new — view" is required, there would be no need to redo all the layers, there would simply be a new digital — pipe" attached in order to access the layers.

"Pulling data from different sources for a different view — that is the core of thinking about content management," said Arnold. And the key to its magic is technology.

Advances in software standards and XML-based tools will enable policy to be part of the underpinning layer, explained Arnold. Instead of having to write new code for every change in business logic, XML authoring tools allow information to be entered only once, and as long as security parameters are set up, one agency employee can enter information and another user at a different agency can pull it up, sifted through layers of Web services. He described a graphic tool that allows content managers to simply move chunks of business logic via mouse.

In conclusion, Arnold said, — enterprise content management is not an add-on, it's our business. ...Libraries are an important part of that." The changing enterprise content management setting will require output on the fly. The technology will enable us to do policy. It is not idle thinking that we can share," he said, adding that this way of thinking is part of the shift to a real time enterprise.

"A real time enterprise is where any worker can access content; where there is superior information availability. ... We can use technologies to streamline business processes, to be able to reduce costs and enter data only once. The real time enterprise is available through a single interface, and that's a browser, not a word processor."

Policy in the Government's Interest

If Arnold gave his audience a view of the future, Clay looked at the past, culminating in the imperatives of the E-Government Act. He started off his speech with the fact that "the federal government has been in the information business from the very beginning."

Clay enumerated the information activities of government, such as the creation of the depository library system to support an informed and educated public. Some activities are mandated by the Constitution, such as the census. He drew on his experience as a ranking member of the Subcommittee on the Census to illustrate some of the basic problems that federal agencies face today.

"Census records are maintained by the National Archives and after 72 years are opened to the public," he said. Just last April, the Archives opened the 1930 census with much fanfare. These historic census records are the most sought-after collection at the

> *The forum's question for 2003 centered around information management policy—what is the current policy context for federal enterprise content management? And, should federal librarians be responsible for it?*

archives." But, ironically enough, during the 2000 census when forms were captured electronically, paper forms were destroyed.

"The agency, in its zeal to modernize and digitize, had forgotten about its responsibility to preserve public records," said Clay. Ultimately, the Census Bureau had to pay to have forms transferred from electronic records to microfilm.

Clay described the federal government's burgeoning information collection activities in the early 20th century, including the creation of the income tax, the Veterans Administration after World War I, and New Deal programs that brought social programs such as unemployment, social security and welfare benefits. The government's information activities in the latter half of the 20th century are characterized by attempts to reduce burdens and rationalize information management.

Congress passed the Federal Reports Act of 1942 and later the Paperwork Reduction Act (PRA) of 1980. "Those laws attempt to balance the dual, and sometimes competing, goals of managing the life cycle of information, and reducing the reporting burdens the government places on its citizens and businesses," said Clay. The PRA was reauthorized in the 1990s and refocused the activities of the government on information policy and away from information technology.

But there were critical IT policy failures in the 1990s, explained Clay. "Information policy should be about getting the right information to the right people at the right time. All too often it is a discussion of machines and the procurement of those machines," he said.

> *"Information policy should be about getting the right information to the right people at the right time. All too often it is a discussion of machines and the procurement of those machines."*

Instead, there should be an emphasis on knowledge management, which recognizes the importance of the flow of information. "In other words, knowledge management replaces the machine with the information as the focal point of policy and management development," Clay pointed out.

The E-Government Act, signed into law on Dec. 17, 2002, aims to do just that. Among other things, it is designed to improve the methods by which government information is organized, preserved and made accessible to the public, said Clay.

Of particular interest to the library audience, said Clay, is the establishment of an interagency committee that develops recommendations on standards for organizing and categorizing government information which is searchable electronically. The law requires the development of a public domain directory of federal Web sites and a taxonomy of subjects to review and categorize public federal Web sites. In this last activity, the law requires the committee to work in collaboration with agency librarians and federal depository librarians, among others.

"It's too early for evaluation," said Clay. But what is clear from the new law is that electronic documents, just like paper documents, can be considered federal records that need to be managed and preserved. "While this seems obvious to many in this room, it was not that long ago that the executive branch held steadfast to the position that electronic records were not governed by the same rules ... in fact, some argued that they were not records at all."

Ultimately, the E-Government Act begins the process of developing principles of practice for government Web sites. "Here is an area ripe with promise and ripe with problems," said Clay. Agencies need to develop a set of practices and principles that assures that documents are managed and preserved. For example, changes to a document should be obvious to the user and it should be easy for the public to know when a document was placed on a site, he added.

Rep. William Lacy Clay (D-Mo.)

"The Library of Congress is playing an important role in capturing for the public the changing face of Congressional Web sites. ... As knowledge managers, you are in the business of helping people like me, and my staff, get the information we need, when we need it. Far too few people understand the importance of that function," said Clay.

He described a recent observation by TV commentator Andy Rooney about a fallacious Web site that listed the IQs of the past 10 presidents. Clay concluded, "You are the people who protect us from those kinds of frauds. You are the people who must assure the integrity and authenticity of government information. In partnership, we can move government information policy into the 21st century." ■

FLICC Offers Taxonomies Programs and Web Videos

On April 29, 2003, the Science, Technology & Business Division and the FLICC Content Management Working Group cosponsored *Taxonomies in Web Portals: Using Quality Metrics to Show Progress* featuring Dr. Claude Vogel, Chief Technology Officer, Convera.com.

Vogel began the workshop by stating that today's powerful search technologies enable us to rapidly sift through vast quantities of data stored in a variety of formats. This works very well when we know what we are looking for. But all too often, we don't. And it is often in the unplanned, in-the-moment deductive search processes that the greatest discoveries occur. There is a new technology developing in search that directly addresses the problem-solving, discovery and thinking processes of the individual. Called Dynamic Classification, this approach focuses on the "find" process, effectively shortcutting the journey between search and find. It does this by displaying the entire underlying information matrix to the searcher all at once, responsively blending, correcting and manipulating data in real-time and onscreen in step with the searcher's process. The presentation described how the technology works and the steps librarians and other knowledge workers need to take to begin incorporating this technology in order to empower individuals with more efficient, satisfying and specific results-producing search capability within their Intranet.

First, all data should be tagged, categorized and made available for search processes in a single, comprehensive pass. Taxonomies are an extremely important part of this foundation-building process. Taxonomies establish a single, consistent and uniformly understood structure for communication. They reflect a simple genus to species relationship representing a stable and well-understood way of defining the world. Properly used and designed, taxonomies provide a consistent, scalable, stable means of organizing even vast quantities of data. Improperly designed, taxonomies become a maintenance nightmare. The following is a summary of the tenets of good taxonomy design as the basis for an information or knowledge management system: Consistent ontology, based on genus to species relationships; balanced nomenclature, deriving well established top categories that are generic, specific and varietal; and, extensive coverage of terminology, matching the diversity of idioms.

The second phase of knowledge management system design shifts attention away from the corporation's needs to the needs of the individual. This phase addresses information classification — enabling users to "slice and dice" data in the way that makes the most sense to them, given their unique perspective and the problem they are trying to solve at the time. The success of an individual's ability to classify data in this way depends upon the proper design and completion of phase one. Starting from a simple query, final users can browse through any of the folders and sub-folders populated in the classification as desired, viewing everything connected to that query. And, because they are provided with a global view of absolutely everything related to their initial search query, they can immediately see and more efficiently begin pursuit of the areas most likely to help solve specific problems. Building on the foundation established by taxonomies, dynamic classification enables a new level of decision-making in addition to eminently more satisfying search power.

Vogel is considered to be one of the world's leading authorities on linguistic analysis and categorization. As Chief Technology Officer he has broadened the core indexing, categorization and dynamic classification capabilities of Convera's RetrievalWare® search, retrieval and categorization technology and other vertical market solutions. He is also an Associate Professor of Computational Semiotics at the University of Montreal and the University of Albuquerque, and a member of honor of the French Association for Artificial Intelligence. Dr. Vogel engages in ongoing research and has published more than 70 pieces, including nine books. The complete video conference of this workshop is available on the FLICC Video Library at http://www.loc.gov/flicc/video/taxonseries.html. ∎

Make Your Nominations for the 2003 FLICC Awards

To honor the many innovative ways federal libraries, librarians, and library technicians are fulfilling the information demands of government, business, research, scholarly communities, and the American public, the Federal Library and Information Center Committee (FLICC) announces its sixth annual series of national awards in three categories for federal librarianship in Fiscal Year 2003, each award recognizeing an integral role within the federal library and information center community. The three awards are:

Federal Library/Information Center of the Year

This award commends the library or information center's outstanding, innovative, and sustained achievements during Fiscal Year 2003 in fulfilling its organization's mission, fostering innovation in its services, and meeting the needs of its defined user group. The FLICC award is given to both a small library/information center (with a staff of 10 or fewer federal and/or contract employees) and a larger library/information center (with a staff of 11 or more federal and/or contract employees). All nominations must be made on behalf of an entire library or information center (e.g., main or branch library or information center).

Federal Librarian of the Year

This award honors a federal librarian who demonstrated active and innovative leadership and professionalism in the promotion and development of library and information services during Fiscal Year 2003. The nominee must be a federal employee and a practicing librarian in a federal library or information center.

Federal Library Technician of the Year

This award recognizes the achievements of a federal library technician during Fiscal Year 2003 for exceptional technical competency and flexibility under changing work conditions. The nominee must be a federal employee and a practicing paraprofessional or library technician in a federal library or information center.

National Honors Award Winners

The 2003 award winners will be honored for their contributions to federal library and information service at the annual FLICC Forum on Federal Information Policies in Washington, D.C., in March 2004. A plaque engraved with their names and the names of previous and subsequent winners will be on permanent display in the FLICC offices at the Library of Congress.

Online Application Forms Now Available

To obtain nomination materials, visit the Awards Working Group Section of the FLICC Web site (**http://www.loc.gov/flicc/awards.html**), call (202) 707-4800, or send email to **fliccfpe@loc.gov**. The nomination packet includes the nomination form, selection criteria, and a list of needed supporting materials. All completed nominations must be postmarked no later than November 14, 2003. ∎

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